Guilf.

North Carolina Department of Human Resources
Division of Health Services
Drinking Water Health Risk Evaluation For
Petroleum Products

DATE: 12/27/89 LABORATORY NUMBER: 903484

This water is probably contaminated with a petroleum product that may be gasoline, fuel oil, kerosene, or other.

( ) The movement of chemicals into groundwater is difficult to predict. Although these results indicate that trace levels of contaminants are present, this water is acceptable for normal use now. However, since levels may increase or other chemicals might appear in the future, this water should be resampled in _____ month(s). (PLEASE INDICATE ON LAB SHEET THAT IT IS A RESAMPLE AND PROVIDE PREVIOUS SAMPLE NUMBER(S).)

(✓) Your water contains a chemical (benzene) that is known to cause cancer in humans. The U. S. Environmental Protection Agency has set a maximum contaminant level of 5 ug/l (ppb) for benzene. This is the level that is considered acceptable for public water supplies. Even at this level, there may be some risk of cancer. The level of benzene in this water cannot be predicted from one time to another.

(✓) Based on this benzene level, this water should not be used for drinking or cooking. Prolonged bathing/showering should be avoided.

( ) This water is highly contaminated and should not be used for drinking, cooking, or bathing/showering.

( ) This water sample contains multiple contaminants that suggest petroleum contamination. Since the toxicity of some of these agents is unknown or poorly understood, prudent public health policy recommends that this water should not be used for drinking and cooking. Prolonged bathing/showering should be avoided.

Comments: Significant petroleum contamination is evident. Due to the benzene level (37.6 ppb), any continued use of this water for drinking or cooking may result in an increased additional lifetime cancer risk over a period of years. Resample in 3 months.

For further information, contact Dr. Ted Taylor or Dr. Ken Rudo, Environmental Epidemiology Branch, (919) 733-3410.

DHS T475 (Revised 5/89)
Environmental Epidemiology Branch

674-9507

North Carolina Department of Human Resources
Division of Health Services
Laboratory Section
P.O. Box 28047, Raleigh, N.C. 27611

Environmental Sciences Analysis Report

Name of Owner, Patient or Supply: Climax General Store (Mitchells)
Address: 217 NC Hwy 62 E Climax
County: Guilford
Report to: Terry Cole
Address: Guilford Co. Env. Health
301 N. Eugene St, Greensboro NC 27401
Date Collected: 12-1-89
Collected By: Terry Cole
Analysis Desired: VOA / Petroleum.

PETROLEUM PRODUCTS

Laboratory Number	Sample Number	Sample Description or Remarks	Results In
903484			SEE ATTACHED SHEET(S)

Date Received 12-4-89 JM
Date Extracted 12/5/89 VP, JM, MW
Date Reported 12-7-89
Date Analyzed VOC 12/4/89 pm; PP 12/6/89 MW
Reported By:

DHS Form 2364 Revised (5/89)
Laboratory

STATE LABORATORY OF PUBLIC HEALTH
DIVISION OF HEALTH SERVICES, N.C. DEPARTMENT OF HUMAN RESOURCES
P.O. BOX 28047 - 306 N. WILMINGTON ST, RALEIGH, N.C. 27611

Laboratory No. 903484 PURGEABLE COMPOUNDS Date of Analysis 12/4/89

COMPOUND	µg/l
Dichlorodifluoromethane	U
Chloromethane	
✓Vinyl Chloride	
Bromomethane	
Chloroethane	
Trichlorofluoromethane	
✓1,1-Dichloroethylene	
Methylene Chloride	
tert-Butyl Methyl Ether	
(Trans)1,2-Dichloroethylene	
Isopropyl ether	
1,1-Dichloroethane	
2,2-Dichloropropane	
(Cis) 1,2-Dichloroethylene	
Chloroform	
(BCM) Bromochloromethane	
✓1,1,1-Trichloroethane	
1,1-Dichloropropene	
✓Carbon Tetrachloride	
✓Benzene	37.6
✓1,2-Dichloroethane	U
✓Trichloroethylene	
1,2-Dichloropropane	
Bromodichloromethane	
Dibromomethane	
Toluene	3.1
1,1,2-Trichloroethane	U
Tetrachloroethene	
1,3-Dichloropropane	
Dibromochloromethane	
1,2-Dibromoethane (EDB)	
1-Chlorohexane	

COMPOUND	µg/l
Chlorobenzene	U
Ethylbenzene	4.0
1,1,1,2-Tetrachloroethane	U
p-Xylene	5.1
m-Xylene	
o-Xylene	7.4
Styrene	U
Bromoform	
Isopropylbenzene	
1,1,2,2-Tetrachloroethane	
Bromobenzene	
n-Propylbenzene	
1,2,3-Trichloropropane	
2-Chlorotoluene	
1,3,5-Trimethylbenzene	27.5
4-Chlorotoluene	U
(Tert) Butyl Benzene	
Pentachloroethane	
1,2,4-Trimethylbenzene	13.0
(Sec) Butyl Benzene	U
p-Isopropyltoluene	
1,3-Dichlorobenzene	
✓1,4-Dichlorobenzene	
n-Butylbenzene	
1,2-Dichlorobenzene	
(Bis) 2 Chloroisopropyl Ether	
1,2-Dibromo-3 Chloropropane	
1,2,4-Trichlorobenzene	
Hexachlorobutadiene	
Naphthalene	
1,2,3-Trichlorobenzene	

COMMENTS: Numerous unidentified PID peaks present

MDL - Minimum Detection Limit for water (EPA Method 502.2), is 1.0 µg/l.

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected.
NA - Not analyzed.
1/ - Tentative identification.
✓ - Regulated VOC
T - Trihalomethane

N.C. Division of Health Services
DHS 3068-O (1/89 Laboratory)